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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
10 036,148	12 26 2001	Stanley W. Stephenson	83915RLO	3959

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EXAMINER

QI, ZHI QIANG

ART UNIT PAPER NUMBER

2871

DATE MAILED: 08 01 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

Applicant(s)

10 036.148

STEPHENSON, STANLEY W.

Office Action Summary

Examiner

Art Unit

Mike Qi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a) in no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If a 30-day period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent Application publication No. US 2003/0117548 A1 (Stephenson) which is already allowed to issue, and further in view of US 2003/0038912 A1 (Broer et al).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claim 1-15 of the Patent Application Publication US 2003/0117548 A1 have a very corresponding limitations claimed in the claims 1-17 of this application, and substantially they have the doctrine of obviousness-type double limitations. Especially, the independent claims 1, 7 and 11 claimed the limitations for the structure and the making method of a display sheet having polymer dispersed liquid crystals are covered by the claims 1-15 of the Patent Application Publication US 2003/0117548 A1.

For example, the claims 1, 11 and 12 of **this application** claimed a display sheet having polymer dispersed liquid crystals, comprising:

- a) a substrate;
- b) a state changing layer . . . ;
- c) a first conductor . . . ;
- d) a second conductor . . . ;
- e) a nonconductive, field spreading layer having transparent electrically conductive polymer dispersed sub-micron particles, said nonconductive filed spreading layer disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.

(concerning the claim 11 of this application)

- e) nonconductive means for spreading an electrical field, said nonconductive filed spreading means disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.

Concerning the claim 12 of this application, that indicates the nonconductive filed spreading means includes a nonconductive polymer material with transparent and electrically conductive sub-micron polymer particles dispersed in the nonconductive polymer material that is the same meaning of a nonconductive filed spreading layer

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having transparent electrically conductive polymer dispersed sub-micron particles in the claim 1 of this application.

The independent claim 7 of **this application** claimed a method of making a display sheet having polymer dispersed liquid crystals comprising the steps of:

- a) providing a substrate;
- b) coating a state changing layer . . . ;
- c) providing a first transparent conductor. . . and a second conductor. . . ;
- d) coating a nonconductive, field spreading layer having polymer dispersed sub-micron particles of a transparent electrically conductive polymer, said nonconductive, field spreading layer disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.

The claim 1 of the Patent Application Publication **US 2003/0117548 A1** claimed a display sheet having polymer dispersed liquid crystals, comprising:

- a) a substrate;
- b) a state changing layer . . . ;
- c) a first conductor . . . ;
- d) a second conductor . . . ;
- e) a nonconductive, field spreading layer having polymer dispersed sub-micron particles disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in

response to a field applied between the first and second conductors which changes the state of the liquid crystals.

The claim 11 of the Patent Application Publication **US 2003/0117548 A1** claimed a method of making a display sheet having polymer dispersed liquid crystals comprising the steps of:

- a) providing a transparent substrate;
- b) coating a state changing layer . . . ;
- c) providing a first transparent conductor. . . and a second conductor. . . ;
- d) coating a nonconductive, field spreading layer having polymer dispersed sub-micron particles disposed between the state changing layer and the first conductor to provide a change of state in the state changing layer outside of areas between both conductors in response to a field applied between the first and second conductors which changes the state of the liquid crystals.

Therefore, the claims 1, 7, 11 and 12 of **this application** and the claims 1 and 11 of the Patent Application Publication **US 2003/0117548 A1** substantially have the doctrine of obviousness-type double limitations, and they have at least an obviousness-type difference.

Claims 2 and 13 of this application, concerning the same polymer is used to disperse the liquid crystals and the conductive polymer sub-micron particles that is covered by the claim 2 of the US 2003/0117548 as the same polymer is used to disperse the liquid crystals and the sub-micron particles.

Claims 3 and 14 of this application are the same as the claim 5 of the US 2003/0117548.

Claims 4 and 15 of this application are covered by the claims 6 and 12 of the US 2003/0117548.

Claims 5 and 16 of this application are covered by the claim 7 of the US 2003/0117548.

Claims 6 and 17, Broer discloses (paragraph 0161) that the material of polythiophene is an organic electrically conducting polymer material, and such conducting polymers in particular have advantages of being obtainable using a web deposition method. Although, in Broer reference, the material polythiophene is filled in a metal to form electrode, but using the conducting property of the polymer material polythiophene to fill the nonconductive field spreading layer such as the polymer dispersed sub-micron particles having polythiophene would be an obvious variation benefit of the advantages of being obtainable using a web deposition method. Therefore, it would have been obvious to those skilled in the art at the time the invention was made to use the polymer dispersed sub-micron particles having polythiophene as claimed in claims 6 and 17 for being obtainable using a web deposition method.

Claim 8 of this application is the same as the claim 12 of the US 2003/0117548.

Claim 9 of this application is the same as the claim 14 of the US 2003/0117548.

Claim 10 of this application is the same as the claim 15 of the US 2003/0117548.

Response to Arguments

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (703) 308-6213.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Mike Qi
July 16, 2003